



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,094	12/17/2001	Xuemei Ouyang	US 010665	2441

24737 7590 09/06/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

MOORE JR, MICHAEL J

ART UNIT PAPER NUMBER

2666

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary	Application No. 10/023,094	Applicant(s) OUYANG ET AL.	
	Examiner Michael J. Moore, Jr.	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 4/2/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement.

Drawings

2. The drawings are objected to because of the following informalities:

In Figure 2, the "encoder" block should be labeled "22" in order to correspond to the specification.

In Figure 7, steps "550-580" should be labeled "S50-S80" in order to correspond to the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Art Unit: 2666

Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims **2-4, 8, 10-12, 15, 19, and 21-24** are objected to because of the following informalities:

Regarding claim **2**, on lines 3, 5, and 7, the word “the” before words “length”, “retry”, and “sequence” on these lines should be “a” in each instance.

Regarding claim **3**, on line 3, the word “the” before word “address” should be “an”.

Regarding claim **4**, on line 2, the word “the” before word “signal” should be “a”.

Regarding claim **8**, on lines 3, 5, 7, and 9, the word “the” before words “length”, “retry”, “address”, and “sequence” should be “a” in each instance.

Regarding claim **10**, on line 2, the word “the” before word “signal” should be “a”.

Regarding claim **11**, on line 3, the word “the” before word “address” should be “an”.

Regarding claim **12**, on lines 3, 5, and 7, the word “the” before words “length”, “retry”, and “sequence” on these lines should be “a” in each instance.

Regarding claim **15**, on lines 3, 5, 7, and 9, the word “the” before words “length”, “retry”, “address”, and “sequence” should be “a” in each instance.

Regarding claim **19**, on line 2, the word “the” before word “signal” should be “a”.

Regarding claim **21**, on line 2, the word “the” before word “length” should be “a”.

Art Unit: 2666

Regarding claim **22**, on line 2, the word "the" before word "retry" should be "a".

Regarding claim **23**, on line 2, the word "the" before word "address" should be "an".

Regarding claim **24**, on line 2, the word "the" before word "sequence" should be "a".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claim **9** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim **9** recites the limitation "said retransmitted packet" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 2666

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims **1, 4-7, 9, 10, 13, 14, and 16-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara et al. (U.S. 6,842,445) ("Ahmavaara").

Regarding claim **1**, Ahmavaara teaches a hybrid ARQ method with soft combining where an erroneous packet (previous packet) is received and stored in the receiver (second storage medium) and then combined with a retransmitted version of the same packet as spoken of on column 3, lines 56-61. Ahmavaara does not explicitly teach the determination of whether a received packet is a retransmitted packet according to some predetermined criteria. However, Ahmavaara does teach that soft combining of several transmissions when erroneous packets are not discarded requires that a retransmitted MAC PDU has to be identical to the originally transmitted MAC PDU on column 5, lines 17-28. At the time of the invention, it would have been obvious to someone skilled in the art to use this identical MAC PDU requirement (criteria) of soft combining as taught in Ahmavaara to detect retransmitted packets in order to regulate the soft combining of packets.

Regarding claim **4**, Ahmavaara further teaches the soft combining of a received erroneous packet with a retransmitted version of the same packet as spoken of on column 3, lines 56-61.

Regarding claim 5, Ahmavaara does not explicitly teach the determination of whether a received packet is a retransmitted packet according to a MAC frame of a received packet and a stored packet. However, Ahmavaara does teach that soft combining of several transmissions when erroneous packets are not discarded requires that a retransmitted MAC PDU has to be identical to the originally transmitted MAC PDU on column 5, lines 17-28. At the time of the invention, it would have been obvious to someone skilled in the art to use this identical MAC PDU requirement (criteria) of soft combining as taught in Ahmavaara to detect retransmitted packets in order to regulate the soft combining of packets.

Regarding claim 6, Ahmavaara further teaches a Radio Network Controller (RNC) (access point) in Figure 7 used in the soft combining process.

Regarding claim 7, Ahmavaara further teaches a User Equipment (UE) (mobile station) in Figure 7 used in the soft combining process.

Regarding claim 9, Ahmavaara teaches a hybrid ARQ method with soft combining where an erroneous packet (previous packet) is received and stored in the receiver (second storage medium) and then combined with a retransmitted version of the same packet as spoken of on column 3, lines 56-61. Ahmavaara does not explicitly teach the comparison of a PLCP and MAC header of an incoming packet to a previously received erroneous packet to detect whether the incoming packet is a retransmitted version of the erroneous packet. However, Ahmavaara does teach that soft combining of several transmissions when erroneous packets are not discarded requires that a retransmitted MAC PDU has to be identical to the originally transmitted MAC PDU on

Art Unit: 2666

column 5, lines 17-28. At the time of the invention, it would have been obvious to someone skilled in the art to use this identical MAC PDU requirement (comparison) of soft combining as taught in Ahmavaara to detect retransmitted packets in order to regulate the soft combining of packets.

Regarding claim **10**, Ahmavaara further teaches the soft combining of a received erroneous packet with a retransmitted version of the same packet as spoken of on column 3, lines 56-61.

Regarding claim **13**, Ahmavaara further teaches a Radio Network Controller (RNC) (access point) in Figure 7 used in the soft combining process.

Regarding claim **14**, Ahmavaara further teaches a User Equipment (UE) (mobile station) in Figure 7 used in the soft combining process.

Regarding claim **16**, Ahmavaara teaches a hybrid ARQ method with soft combining where an erroneous packet (previous packet) is received and stored in the receiver (demodulation, storage, and combining means) and then combined with a retransmitted version of the same packet as spoken of on column 3, lines 56-61.

Ahmavaara does not explicitly teach a processor determining whether a received packet is a retransmitted packet according to some predetermined criteria. However, Ahmavaara does teach that soft combining of several transmissions when erroneous packets are not discarded requires that a retransmitted MAC PDU has to be identical to the originally transmitted MAC PDU on column 5, lines 17-28. At the time of the invention, it would have been obvious to someone skilled in the art to use this identical

Art Unit: 2666

MAC PDU requirement (criteria) of soft combining as taught in Ahmavaara to detect retransmitted packets in order to regulate the soft combining of packets.

Regarding claim **17**, Ahmavaara further teaches antennas used by base stations and user equipment in Figure 1 for data transmission and reception.

Regarding claim **18**, Ahmavaara further teaches the soft combining of a received erroneous packet with a retransmitted version of the same packet as spoken of on column 3, lines 56-61.

Regarding claim **19**, Ahmavaara further teaches the soft combining of a received erroneous packet with a retransmitted version of the same packet as spoken of on column 3, lines 56-61.

Regarding claim **20**, Ahmavaara does not explicitly teach the determination of whether a received packet is a retransmitted packet according to a MAC frame of a received packet and a stored packet. However, Ahmavaara does teach that soft combining of several transmissions when erroneous packets are not discarded requires that a retransmitted MAC PDU has to be identical to the originally transmitted MAC PDU on column 5, lines 17-28. At the time of the invention, it would have been obvious to someone skilled in the art to use this identical MAC PDU requirement (criteria) of soft combining as taught in Ahmavaara to detect retransmitted packets in order to regulate the soft combining of packets.

10. Claims **2, 3, 8, 11, 12, 15, and 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara et al. (U.S. 6,842,445) ("Ahmavaara") in view of Gubbi (U.S. 6,934,752) ("Gubbi").

Regarding claims **2, 3, 8, 11, 12, 15, and 21-24**, Ahmavaara does not explicitly teach the determination of whether a received packet is a retransmitted packet according to the comparison of fields (length, retry bit, sequence control, address) of a MAC frame of a received packet and a stored erroneous packet. However, Ahmavaara does teach that soft combining of several transmissions when erroneous packets are not discarded requires that a retransmitted MAC PDU has to be identical to the originally transmitted MAC PDU on column 5, lines 17-28. It follows from this that the MAC header fields have to be identical. Gubbi further shows the fields contained in a MAC header field in Figure 5. At the time of the invention, it would have been obvious to someone skilled in the art to use the identical MAC PDU requirement (criteria) of soft combining as taught in Ahmavaara with the MAC header fields shown in Gubbi to compare these header fields in order to detect retransmitted packets and regulate the soft combining of packets.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Seidel et al. (U.S. 6,658,005), Balachandran et al. (U.S. 6,778,558), and Choi (U.S. 2003/0023915) are other references pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:30am - 5:00pm).

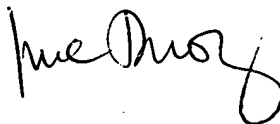
Art Unit: 2666

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached at (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Moore, Jr.
Examiner
Art Unit 2666

mjm MM



FRANK DUONG
PRIMARY EXAMINER